

Remarks

Independent claims 1 and 19 have been rejected under 35 U.S.C. 103 (a) as being “unpatentable” over Ranta in view of Chawla. That rejection is respectfully traversed. Ranta (WO 98/10615) discloses a method for setting a service level in a digital mobile communication system. Radio resources are managed by taking account of interference load measurements.

As noted by the Examiner, Ranta discloses, for each base station serving mobile stations in a cell, obtaining values of a quantity based on measurements made on radio channels in the cell. Referring to page 7, lines 5-12, the measured quantity is “the level of interference on all traffic channels of the base station.” On the basis of this measurement, the “interference load” of the cell in question is defined. Furthermore, a “network interference load” is defined on the basis of the cell interference load values.

The Examiner has further noted that Ranta teaches the quantity being compared to at least one associated parameter in a procedure for managing the radio resources allocated to the mobile stations. Specifically, Ranta discloses in page 7, lines 13-14, that the interference load value (of a cell or of the network) is compared with a threshold value 11. Such threshold value 11 is thus understood to constitute the “associated parameter” in the Examiner’s reasoning.

Referring to page 8, lines 7-14, the Examiner further indicates that Ranta would teach maintaining a statistics of the values obtained for a quantity. Page 8, lines 7-14 is a comment of figure 5 which shows various percentages regarding the network load, the outage probability and capacity increases. The Examiner’s reading of the claimed language on that portion of Ranta is difficult to understand. The claim language calls for maintaining a statistic for said quantity, as referred to in the previous portion of the claim, not for *any* quantity. Figure 5 of Ranta and the corresponding comments do not appear to mention or suggest any statistics for the interference levels of individual channels or the cell or network interference loads values as discussed in page 7. It is thus submitted that Ranta fails to disclose the claimed step of maintaining a statistic of the values obtained for said quantity.

The Examiner has further read Ranta as teaching adapting the value of an associated parameter for the cell in such a way that, according to the statistics, the values obtained of the quantity are below a threshold value of the associated parameter. This statement is made with reference to page 7, lines 33-36 and page 8, lines 1-14. The adapted parameter would therefore be the transmission power of the BTS or MS. Here again, it must be pointed out that the adapted value according to the claim language is the value of said associated parameter, as defined previously in the claim. With the Examiner's reading of Ranta, that parameter would have to be threshold 11 to which the measured "quantity" is compared in a radio resource management procedure. However, it is quite clear from Ranta that the threshold value 11 is fixed or predetermined (see e.g. claims 5 and 11), and set by operator (see e.g., page 7, lines 14-15 and 36).

Accordingly, the "said" associated parameter which could be identified in Ranta is not adapted as claimed. A fortiori, it is not adapted according to a statistic for the "said" quantity, which statistic is not disclosed either.

In addition, as noted by the Examiner, Ranta does not teach adapting the value of such parameter so that a fraction of the values obtained of the quantity are greater than the value of the associated parameter.

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For the latter feature, the Examiner relies on the Chawla patent (US 6,496,700). Chawla discloses a wireless communication system having an automated adjustment scheme for system organization parameters. More precisely, Chawla collects received signal strength (RSS) or path loss measurements, whose distribution is analyzed cell by cell as illustrated in table 1 (columns 6-7) or table 2 (column 11). In this respect, it could be considered that Chawla maintains some statistic of the values obtained for a quantity such quantity being the RSS or path loss.

Chawla mentions that the RSS quantity can be requested by a cell-site or BTS from an idle mobile unit for different communication channels so that the mobile unit reports the measurement information to the BTS to indicate the interference on the respective channels (column 2, lines 22-32). Such information can be processed to establish communication with the

mobile unit using the channel with the lowest interference. Such radio resource management procedure does not appear to make use of an “associated parameter” to which the quantity would be compared. In any event, the value of such associated parameter is not adapted by means of the statistic obtained for the RSS or path loss quantity.

Chawla also mentions a -90 dBm RSS threshold in column 9, line 51. Such threshold can be used to adjust the base station power level settings.

Even if one assumes that such RSS threshold could be called an “associated parameter” within the meaning of claims 1 and 19, it remains that its value of -90 dBm is not adapted but fixed. Such value is based on an a priori representation of what is an acceptable level of received power for the radio stations to operate in a cell. No statistics derived from actual measurements are used to determine that value.

In Chawla, the RSS or path loss measurement collection is used to determine some parameters such as transmission power, isolation values, etc., as indicated in column 9, lines 5-16. These parameters are not understood to comprise “associated parameters” within the meaning of the claims. And most importantly, their values are not adapted in the manner recited at the end of claims 1 and 19. Let us consider for example the base station power level setting as discussed in column 9, lines 17 seq. of Chawla. That power level is said to be adjusted so that a certain percentage (e.g. 95% column 9, line 50) of the RSS values listed are above the -90 dBm RSS threshold. But the claim language calls for an adaptation of the value of a parameter, so that a certain fraction of the statistically surveyed measurements exceed the value of that parameter (not a fixed threshold).

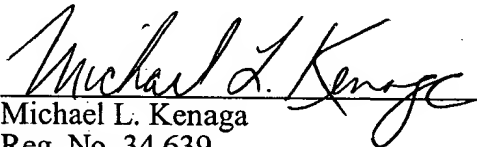
It is therefore submitted that Chawla, like Ranta, fails to disclose or suggest the claimed feature that the value of an associated parameter is adapted for the cell in such a way that, according to a statistic maintained for a quantity derived from radio channel measurements, a determined fraction of the values obtained of said quantity are greater than the value of the associated parameter, where the measured quantity is compared to the resulting associated parameter in a radio resource management procedure.

That feature is present in both independent claims 1 and 19. Since it is suggested by none of the cited references, it is respectfully requested that the 35 U.S.C. 103 rejection of these two claims be reconsidered.

Claims 1 and 19 are believed to be allowable. The same conclusion holds for the dependant claims 2-18 and 20-36, because these claims depend on the allowable claims 1 and 19, and also because of the specific features recited in these dependent claims.

Favorable consideration and prompt allowance of the application are respectfully requested.

Respectfully submitted,


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